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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,049	11/15/2000	Stepan B. Sokolov	5181-60100	4379

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EXAMINER
GROSS, KENNETH A

ART UNIT	PAPER NUMBER
2122	7

DATE MAILED: 07/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/714,049	SOKOLOV, STEPAN B.	
	Examiner	Art Unit	
	Kenneth A Gross	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-67* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046; 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 11 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 17 of copending Application No. 09/714,050. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claim 17 of the copending application No. 09/714,050 teaches the detecting, generating, interpreting, executing, and accessing one or more program objects steps, as taught in Claim 11 of the application. The current application teaches an intermediate language (platform independent language) whereas the copending application No. 09/714,050 specifies generating a platform-independent programming language (which can be seen as an intermediate language). Neither change makes a difference in the scope of the claim.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Specification

3. The use of the trademarks "JAVA" and "JAVASCRIPT" has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 11, 12, 14, 20, 23, 25-27, 29, 31, 33-36, 40, 44, 46, 48, 50-52, 55, 56, 62, 63, and 67 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang (U.S. Patent Number 6,292,936).

In regard to Claim 11, Wang teaches: (1) a first process detecting one or more script language instructions in a markup language document, where the first process is implemented in a platform-independent programming language (Column 4, lines 43-47); (b) generating an intermediate representation of the one or more script language instructions (Column 4, lines 48-58); (c) interpreting and executing each of the intermediate representation instructions by using

program objects to implement the instructions (Column 4, lines 48-58); (d) wherein said interpreting and executing produces results in accordance with the original one or more script language instructions. The interpreter inherently converts the script into an equivalent intermediate form (Column 1, lines 19-21). Claims 27, 34, 50-52, and 62 correspond directly o Claim 11 and are rejected for the same reasons as Claim 11.

In regard to Claim 12, Wang teaches: (a) the web browser passing execution to an interpreter engine after script language detection (Column 4, lines 43-58); (b) wherein said generating, interpreting, executing, and accessing one or more program objects is performed by the interpreter engine. Generating, interpreting, and executing steps are inherent aspects of an interpreter. Wang teaches that the interpreter engine accesses the program object (Column 4, lines 48-58). Claims 35 and 63 correspond directly with Claim 12 and are rejected for the same reasons as Claim 12.

In regard to Claim 14, syntax checking is an inherent aspect of interpreters or compilers, since the interpreter or compiler would need to validate that the instruction is a valid instruction if it is to execute the instruction. Claim 40 corresponds directly with Claim 14 and is rejected for the same reasons as Claim 14.

In regard to Claim 20, Wang teaches using HTML as a markup language (Column 2, lines 27-29). Claims 31 and 44 correspond directly with Claim 20 and are rejected for the same reasons as Claim 20.

In regard to Claim 23, Wang teaches that the program objects are Java objects (Figure 3, item 306). Claims 29, 46, and 61 correspond directly with Claim 23 and are rejected for the same reasons as Claim 23.

In regard to Claim 25, Wang teaches a Java-based web browser executing within a Java Virtual Machine that executes the HTML parser (Column 2, lines 49-63). Claims 33, 36, and 67 correspond directly with Claim 25 and are rejected for the same reasons as Claim 25.

In regard to claim 26, Wang teaches an HTML parser that determines whether or not a statement received comprises a script block, and if so, passing execution to an interpreter engine (Column 4, lines 48-63). Although Wang does not explicitly teach determining whether the current tag does not identify script language, and if so, the Web browser executing the current tag, this function is an inherent part of an HTML parser, and is performed by numerous Web browsers. If a Web browser does not parse code, the HTML document would never be viewed on a Web browser.

In regard to Claim 48, Wang teaches a Web browser and interpreter engine (Figure 1, items 110 and 112), and an HTML parser that detects scripts in the HTML document, and provides the scripts to the interpreter engine where the scripts are executed (Column 4, lines 48-63).

In regard to Claim 55, it is an inherent aspect in an HTML parser to detect scripts embedded in an HTML document by parsing tags that indicate the beginning of a script.

In regard to Claim 56, Wang teaches a device with a Java Virtual Machine, an interpreter engine, a Web browser (Figure 1, items 110, 112, and 104), and an HTML parser that detects scripts in the HTML document, and provides the scripts to the interpreter engine where the scripts are executed (Column 4, lines 48-63).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Patent Number 6,292,936) in view of "The Principles of Computer Hardware, Third Edition" by Alan Clements, 2000 (hereinafter Clements).

In regard to Claim 13, Wang teaches the method of Claim 11, but does not teach where the instructions are stored on a stack, and the instructions are popped from the stack during the interpreting and executing steps. Clement, however, does teach using the stack data structure to hold instructions that are executed by popping the instruction off of the stack. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the detecting, generating, interpreting, executing, and accessing steps of Claim 11, as taught by Wang, where the instructions are stored on a stack, and the instructions are popped from the stack during the interpreting and executing steps, as taught by Clements, since this is an intuitive way to parse instructions in a computer system.

8. Claims 15-17, 37-39, 57, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Patent Number 6,292,936) in view of "Load-Time Structural Reflection in Java" by Shigeru Chiba, June 2000 (hereinafter Chiba).

In regard to Claim 15, Wang teaches the method of Claim 11, but does not teach the generating of intermediate language step includes modifying at least one of the programming objects. Chiba, however, does teach using the Java Reflection API to alter class definitions, and

hence altering the objects that are created by the class during the translating of the script language (Page 7, lines 17-20). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the detecting, generating, interpreting, executing, and accessing steps of Claim 11, as taught by Wang, where the generating step includes modifying at least one of the programming objects, as taught by Chiba, since this allows for efficient dynamic alteration of Java classes. Claims 37, 57, and 64 correspond directly with Claim 14 and are rejected for the same reasons as Claim 15.

In regard to Claim 16, Chiba teaches adding methods and fields to a program object (Page 8, table 3). Claim 38 corresponds directly with Claim 16 and is rejected for the same reasons as Claim 16.

In regard to claim 17, the examiner takes official notice that removing methods and fields from a program object is well known, especially when methods and fields become outdated, and hence no longer have any function. Claim 39 corresponds directly with Claim 17 and is rejected for the same reasons as Claim 17.

9. Claims 18, 19, 24, 30, 32, 41-43, 47, 49, 54, 58, 59, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Patent Number 6,292,936).

In regard to Claim 18, the examiner takes official notice that it would be obvious to store program objects in object libraries, since object libraries allow for convenient and efficient storage of Java classes. Claims 41 and 58 correspond directly with Claim 18 and are rejected for the same reasons as Claim 18.

In regard to Claim 19, Wang teaches that JavaScript is a well-known scripting language, and that the translation of JavaScript in a Web environment is also known in the art (Column 1,

lines 13-18). Claims 30, 43, 54, 59, and 65 correspond directly with Claim 19 and are rejected for the same reasons as Claim 19.

In regard to Claim 24, it would be obvious to use Java to implement the process of detecting, since Java is a well-known platform independent language. Claims 32 and 47 correspond directly with Claim 24 and are rejected for the same reasons as Claim 24.

Claim 49 corresponds directly with Claim 24 and 25 and is rejected for the same reasons as Claims 24 and 25.

In regard to Claim 42, it would be obvious to store object libraries in memory, since memory is used for computer storage and retrieval purposes.

10. Claim 21, 22, 45, 53, 60, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Patent Number 6,292,936) in view of "The IR to VMx86 Translation Module Specification" by Chris Lattner, December 1999 (hereinafter Lattner).

In regard to Claim 21, Wang teaches the method of Claim 11, but does not teach each of the instructions in the intermediate representation is represented as one or more Java objects. Lattner, however, does teach an Instruction Java class that creates instruction objects (Page 2). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the detecting, generating, interpreting, executing, and accessing steps of Claim 11, as taught by Wang, where each of the instructions in the intermediate representation is represented as one or more Java objects, as taught by Lattner, since this allows for the encapsulation, and thus the easy access and modification of a program of instructions. Claims 45, 53, 60, and 66 correspond directly with Claim 21 and are rejected for the same reasons as Claim 21.

In regard to Claim 22, Lattner teaches an Operator class (Page 23) that takes operands of type SimpleValue, and hence SimpleValue represent an Operand class.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Renshaw (U.S. Patent Number 6,065,024)

Toutonghi et al. (U.S. Patent Number 5,920,720)

"JDK 1.1.8 Documentation: Java Reflection", Sun Microsystems, 1998

"Take an in-depth look at the Java Reflection API", by Chuck McManis, JavaWorld (www.javaworld.com), Issue September 1997.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Gross whose telephone number is (703) 305-0542. The examiner can normally be reached on Mon-Fri 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on (703) 305-4552. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

KAG
July 10, 2003

TUAN Q. DAM
PRIMARY EXAMINER